

CLAIMS

1. A method of moulding an article having a relatively small thickness in relation to its dimensions in plan including providing a mould for the article,
- 5 locating or forming one or more inserts on a mould face which will define a part of the surface of the moulded article,
- introducing the material to be moulded into the mould,
- providing attachment means with an irregular surface in contact with the material,
- 10 maintaining the mould in such an orientation while the material hardens and mechanically bonds to the attachment means, such that the said mould face is inclined to the horizontal at an angle at which the or each insert is retained on the said face against slipping by friction during the hardening of the material, and
- providing gas-outlet means from an upper part of the mould in the said
- 15 orientation to allow the escape of gases during the moulding process.
2. A method according to Claim 1 wherein the attachment means is a sheet.
3. A method according to Claim 1 or Claim 2 wherein the attachment means is
- 20 flexible.
4. A method according to any preceding claim wherein the irregular surface of the attachment means comprises a mechanically scuffed surface.

5. A method according to any one of Claims 1 to 3 wherein the irregular surface of the attachment means comprises a chemically etched surface.
6. A method according to any one of Claims 1 to 3 wherein the irregular surface of the attachment means comprises a ribbed surface.
7. A method according to any one of Claims 1 to 3 wherein the irregular surface of the attachment means comprises an array of short hairs or bristles.
8. A method according to any preceding Claims wherein the attachment means is provided with knit loops.
9. A method according to Claim 8 wherein the attachment means has a looped Velcro-like surface.
10. A method according to Claim 8 wherein the attachment means is a velour.
11. A method according to any preceding claim wherein the attachment means comprises an impermeable material.
12. A method according to any preceding claim wherein the attachment means comprises a vinyl material.

13. A method according to Claim 12 wherein the vinyl material is poly vinyl chloride.

14. A method as claimed in any preceding claim, in which, during the introduction
5 of the material to be moulded, the mould is supported in an orientation in which the
said mould face is substantially horizontal and, after the introduction, is moved to an
inclined orientation at an angle at which the or each insert is retained on the mould
face against slipping by friction, for the article to set, cure or harden.

10 15. A method as claimed in any preceding claim, in which at least one insert is
retained in the finished moulded article.

16. A method as claimed in Claim 15, in which the said at least one insert to be
retained is a partially-cured moulded article which sets, cures or hardens and bonds to
15 the moulding material as this latter itself sets, cures or hardens.

17. A method as in Claim 16, in which a plurality of the said inserts are moulded
in a single mould body so shaped that the inserts have a predetermined spacing and
orientation, which is maintained as the inserts are transferred to their position on the
20 said mould face.

18. A method as claimed in Claim 16 or Claim 17, in which the or each insert to
be retained is moulded directly on the mould face by means of subsidiary mould
means which are removed when the insert has cured sufficiently to be at least

substantially cohesive.

19. A method as claimed in Claim 16, in which the subsidiary mould means
comprise a template having cut-out portions defining the or each insert, and material
5 for forming the insert is applied to the apertures in the template.

20. A method as claimed in Claim 19, in which the template is placed in contact
with the said mould face and the material for forming the insert applied thereto by
spatula and scraped off level with the surface of the template.

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21. A method as claimed in Claim 17, in which a transfer sheet is applied to a
partly cured insert to maintain the component parts thereof in a predetermined relative
orientation and/or spacing upon transfer from the said mould body to the said mould
face.

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22. A method as claimed in Claim 18, in which the template is cut by a cutter
controlled by computer means which is programmable to determine the shape or
shapes of the cut-out portions to be changed to form different inserts.

20 23. Apparatus for moulding an article having a relatively small thickness in
relation to its dimensions in plan comprising a shallow mould part with a flat mould
face which will define an under surface of the moulded article, inserts or means for
forming inserts for location on the said mould face, attachment means for mechanical
bonding to the material, means for closing the mould, means for supporting the closed

mould in an orientation in which the said mould face is inclined to the horizontal at an angle at which the or each insert is retained on the said mould face against slipping by friction, and means for venting gas from an upper part of the mould in the inclined position of the mould.

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24. A method as hereinbefore described and with reference to Figures 1 to 10.

25. An apparatus as hereinbefore described and with reference to Figures 1 to 10.